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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,201	03/27/2002	Udo Gartner	540608-2002	2371

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NEW YORK, NY 10151

EXAMINER

MCCLLOUD, RENATA D

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,201

Applicant(s)

GARTNER ET AL

Examiner

Renata McCloud

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the amendment filed 19 February 2004, the following has occurred: Claim 8 has been amended.

Specification

2. The disclosure is objected to because of the following informalities:

(i) Page 1, line 5 of the specification refers to the journal *Automotive Engineering*, June 1977, page 45, Fig. 5; Page 2 line 14 of the specification refers to page 44, Fig. 3; and Page 2 line 17 of the specification refers to Fig. 4 on page 45.

The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory

material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

(ii) Page 6, line 3 of the specification refers to "Both forms of the invention, the U-shaped pipe configuration as well as the S-shaped configuration". However, there is no description of the S-shaped configuration.

(iii) The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, (a) the S-form configuration, (b) a motor vehicle, and (c) modular parts, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 8 is objected to because of the following informalities: Line 4 of claim 8 recites the limitation "into which the openings of the gas-conducting pipe communicatively open", which has a grammatical error. A suggestion for rewriting this would be "into which the openings of the gas-conducting pipe are communicatively open". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 8, 10, and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which

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was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- a. Claim 8: there is nothing in the specification that supports the gas-conducting pipe being constructed as a modular part for a two-part silencer housing and the modular part of a series of modular parts configured with different openings.
- b. Claim 10: there is nothing in the specification that supports a S-form configuration of the pipe assembly.
- c. Claim 12: there is nothing in the specification that supports a method for silencing an exhaust installation of a motor vehicle.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) The recitation "in connection with the defined openings specifications of all openings of the pipe communicatively aligned with the respective housing chamber" is unclear. The claim recites the limitation "the defined openings specifications". There is insufficient antecedent basis for this limitation in the claim.

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(b) The limitation "arranged in a silencer housing in such a manner that it runs through an axial series of silencer housing chambers", is unclear. It is unclear what "it" is referring to. Is it the exhaust silencer or the pipe? The way the claim is written, it reads "An exhaust silencer, arranged in a silencer housing".

(c) The recitation "the modular part of a modular series of modular parts is configured with different openings" is unclear.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eberspacher (FR 1258458), in view of Wolf et al (WO97/40271)*.

*Note: US 5,979,598 has been used as a translation for WO97/40271.

Claim 8: An exhaust silencer, comprised of a gas-conducting pipe (Fig. 2: 2) having openings (Fig. 2: 3) of a defined cross-section and defined wall height, arranged in a silencer housing in such a manner that it runs through an axial series of silencer housing chambers (Fig. 2: 1, 1a, 1b) insulated gastight from each other, into which the openings of the gas-conducting pipe communicatively open, and the gas-conducting pipe is led through the silencer housing chambers in such a manner that the latter run

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through each of the silencer housing chambers at least twice (Fig. 2: 2 runs through each chamber twice), with minimal dissipation losses.

It is unclear if Eberspacher teaches the volumes of all chambers of the silencer housing in connection with the defined openings specifications of all openings of the pipe communicatively aligned with the respective silencer housing chamber are tunable to an interference frequency band from the noise spectrum of the exhaust gases to be dampened respectively, and wherein the gas-conducting pipe is constructed as a modular part for a two-part silencer housing, and the modular part of a modular series of modular parts is configured with different openings tuned to the same respective silencer housing chamber volumes.

Wolf et al teach an exhaust silencer comprising a gas-conducting pipe (Fig. 1: 2) having openings of a defined cross-section and defined wall height the volumes of all chambers of the silencer housing in connection with the defined openings specifications of all openings of the pipe communicatively aligned with the respective silencer housing chamber are tunable to an interference frequency band from the noise spectrum of the exhaust gases to be dampened respectively (Col. 3:60-4:20), and wherein the gas-conducting pipe Fig. 1:2) is constructed as a modular part for a two-part silencer housing (Fig. 1:4; Col. 5:29-34), and the modular part of a modular series of modular parts is configured with different openings (Fig. 1:7) tuned to the same respective silencer housing chamber volumes (Col. 3:60-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Eberspacher and Wolf et al to include a the teaching of Wolf et al.

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The advantage of this would be a muffler that allows effective damping of airborne noise over a broad band of frequency.

Claim 9: Eberspacher and Wolf et al teach the limitations of claim 8. Referring to claim 9, Eberspacher teaches a U-shaped configuration of the pipe assembly (Fig. 2).

Claim 11: Eberspacher and Wolf et al teach the limitations of claim 8. Referring to claim 11, Wolf et al teach a gas-conducting pipe of die cast aluminum or plastic (Col. 2: 65-3:1).

Claim 12: Eberspacher and Wolf et al teach the limitations of claim 8. Referring to claim 12, Wolf et al teach a muffler used in exhaust installations for motor vehicles (Col. 1:1-5).

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eberspacher and Wolf et al as applied to claim 8 above, and further in view of Kullander et al (U.S. Patent 5,332,873).

Claim 10: Eberspacher and Wolf et al teach the limitations of claim 8. Referring to claim 10, they do not teach an S-form configuration. Kullander et al teach an S-form configuration (Fig. 2:7 and 8) of the pipe assembly in the silencer housing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Eberspacher and Wolf et al to include a S-shaped pipe as taught by Kullander et al. The advantage of this would be a design choice that allows means for a muffler to be adapted to a limited space.

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R s p o n s t o A r g u m n t s

12. Applicant's arguments with respect to claims 8-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2800 ext. 4. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RDM

Renata McCloud
Examiner
Art Unit 2837



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